Spring Development

PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service - practice code 574



DEFINITION

Spring Development is improving springs and seeps by excavating, cleaning, capping, or providing collection and storage facilities.

PRACTICE INFORMATION

The purpose of the practice is to improve distribution of water for livestock, recreation and wildlife. The practice also applies to irrigation when the quantity and quality are suitable for irrigating crops.

Spring development involves cleaning and/or enlarging the discharge opening of the spring. Other appurtenances might be needed such as a collection device to channel the water, and a spring box to provide a small amount of storage as well as a sediment trap and connection point for an outlet pipe (s). The outlet pipe (s) may then lead to a storage facility (s) such as a trough or tank.

Additional information including design criteria and specifications are in the local NRCS Field Office Technical Guide.

The following pages list the conservation effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, and soil. Users are cautioned that these effects are estimates that may or may not apply to a specific site.

CONSERVATION PRACTICE PHYSICAL EFFECT WORKSHEET

NOTE: recorded in Microsoft word 6.0 - use tabs to change cells/fields

NOTE: recorded in Microsoft word 6.0 - use tabs STATE Iowa FIELD OFFICE	to change cells/fields DATE 5/15/97		
	NOTES:		
PRACTICE: 574 Spring Development	NOTES:		
RESOURCE: SOIL	Help Message: Click on form field for choice lists.		
RESOURCE: SOIL RESOURCE CONCERN: EROSION	Refer to Microsoft Word Users Guide (Creating a form)		
RESOURCE INDICATORS	PHYSICAL EFFECTS		
SHEET AND RILL	moderate reduction in sheet and rill erosion		
WIND	N/A		
EPHEMERAL GULLY	N/A		
CLASSIC GULLY	N/A		
STREAMBANK	N/A		
IRRIGATION INDUCED	N/A		
SOIL MASS MOVEMENT	N/A		
ROADBANK/CONSTRUCTION	N/A		
OTHER			
RESOURCE CONCERN: SOIL CONDITION	V		
SOIL TILTH	N/A		
SOIL COMPACTION	N/A		
SOIL CONTAMINATION			
• SALTS	N/A		
• ORGANICS	N/A		
• FERTILIZERS	N/A		
• PESTICIDES	N/A		
• OTHER			
DEPOSITION/DAMAGE			
• ONSITE	situational concerning onsite deposition damage		
• OFFSITE	situational concerning offsite deposition damage		
DEPOSITION/SAFETY			
• ONSITE	N/A		
• OFFSITE	N/A		
OTHER			
RESOURCE: WATER			
RESOURCE CONCERN: WATER QUANTI'	ΓY		
SEEPS	N/A		
RUNOFF/FLOODING	N/A		
EXCESS SUBSURFACE WATER	N/A		
INADEQUATE OUTLETS	N/A		
WATER MGT. IRRIGATION			
• SURFACE	N/A		
• SPRINKLER	N/A		
WATER MGT. NON-IRRIGATED	N/A		
RESTRICTED FLOW CAPACITY (H20 convey.)			
• ONSITE	N/A		
• OFFSITE	N/A		
RESTRICTED STORAGE	N/A		

RESOURCE: WATER		
RESOURCE CONCERN: WATER QUALITY		
RESOURCE INDICATORS	PHYSICAL EFFECTS	
GROUNDWATER CONTAMINANTS		
• PESTICIDES	N/A	
NUTRIENTS AND ORGANICS	N/A	
• SALINITY	N/A	
HEAVY METALS	N/A	
• PATHOGENS	N/A	
• OTHER		
SURFACE WATER CONTAMINANTS		
• PESTICIDES	N/A	
 NUTRIENTS AND ORGANICS 	N/A	
SUSPENDED SEDIMENTS	N/A	
LOW DISSOLVED OXYGEN	N/A	
• SALINITY	N/A	
HEAVY METALS	N/A	
WATER TEMPERATURE	N/A	
• PATHOGENS	N/A	
AQUATIC HABITAT SUITABILITY	N/A	
OTHER		
RESOURCE: AIR		
RESOURCE CONCERN: AIR QUALI	TY	
AIRBORNE SEDIMENT AND SMOKE		
PARTICLES		
ONSITE SAFETY	N/A	
OFFSITE SAFETY	N/A	
ONSITE STRUCT. PROBLEMS	N/A	
OFFSITE STRUCT. PROBLEMS	N/A	
ONSITE HEALTH	N/A	
OFFSITE HEALTH	N/A	
AIRBORNE SEDIMENT CAUSING	N/A	
CONVEYANCE PROBLEMS		
AIRBORNE CHEMICAL DRIFT	N/A	
AIRBORNE ODORS	N/A	
FUNGI, MOLDS, AND POLLEN	N/A	
OTHER		
RESOURCE CONCERN: AIR CONDITION		
AIR TEMPERATURE	N/A	
AIR TEMPERATURE AIR MOVEMENT (windbreak effect)	N/A N/A	

RESOURCE CONCERN: SUITABILIT	T
RESOURCE INDICATORS	PHYSICAL EFFECTS
SITE ADAPTATION	insignificant
PLANT USE	sign. improvement in plant suit. for intended use
OTHER	
RESOURCE CONCERN: CONDITION	
PRODUCTIVITY	sign. improvement in plant cond./ productivity
HEALTH, VIGOR, SURVIVAL	sign. improvement in plant health, vigor, survival
OTHER	
RESOURCE CONCERN: MANAGEMI	ENT
ESTAB., GROWTH, HARVEST	sign. improvement in plant estab.,growth,harvest
NUTRIENT MANAGEMENT	N/A
PESTS	N/A
THREAT/ENDANGERED PLANTS	N/A
OTHER	
RESOURCE: ANIMAL	
RESOURCE CONCERN: HABITAT	
FOOD	insignficant
COVER/SHELTER	N/A
WATER (QUANTITY & QUALITY)	sign. improvement in animal habitat/water\
OTHER	
RESOURCE CONCERN: MANAGEMI	ENT
POPULATION BALANCE	sign. improvement in animal mgt./pop. balance
THREAT/ENDANGERED ANIMALS	situational
HEALTH	sign. improvement in animal mgt./ health
OTHER	
RESOURCE: HUMAN	
RESOURCE CONCERNS: ECONOMIC	C CONSIDERATIONS
PLAN / COST EFFECTIVENESS	significantly cost effective
CLIENT FINANCIAL CONDITION	significantly cost effective
MARKETS FOR PRODUCTS	N/A
AVAILABLE LABOR	significant decrease in labor requirement
AVAILABLE EQUIPMENT	significant decrease in equip. needed

RESOURCE: HUMAN		
RESOURCE CONCERN: SOCIAL CONSIDERATIONS		
RESOURCE INDICATORS	PHYSICAL EFFECTS	
PUBLIC HEALTH AND SAFETY	slight improvement in public health & safety	
PRIVATE/PUBLIC VALUES	sign. improvement in private/public values	
CLIENT CHARACTERISTICS	N/A	
RISK TOLERANCE	insignificant risk involved	
TENURE	N/A	
OTHER		
RESOURCE CONCERN: CULTURAL CONSIDERATIONS		
ABSENCE/PRESENCE OF CULTURAL RESOURCES	situational regarding cultural resources	
SIGNIFICANCE OF CULTURAL RESOURCES	situational regarding cultural resources	
MITIGATION OF NEGATIVE CULTURAL RES. IMPACTS	situational regarding cultural resources	
OTHER		